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February 17, 2009

## **AGENDA ITEM 3b**

### **TO: MEMBERS OF THE INVESTMENT POLICY SUBCOMMITTEE**

- I. SUBJECT:** Revision of Policy on Currency Overlay Program regarding exposure aggregate and currency hedge ratio
- II. PROGRAM:** Total Fund
- III. RECOMMENDATION:** Approve the revised Statement of Investment Policy for Currency Overlay Program.
- IV. ANALYSIS:**

### **INTRODUCTION**

At its December 15, 2008 meeting, the Investment Committee approved the following:

- The Currency Overlay Program shall be revised so that it applies to the currency exposure aggregated at the Total Fund level, rather than exclusively for international equities;
- Subject to further review, the currency hedge ratio shall be set at 15%, with an accompanying range to be proposed to the Policy Subcommittee; and,
- Staff and Wilshire Associates shall continue to review the methodology for the hedge ratio and shall update the Investment Committee in six months.

The revised policy, included as Attachment 1, conforms to these approved changes. Wilshire's opinion letter is included as Attachment 2.

## DESCRIPTION OF POLICY CHANGES

The primary change in Policy is that the Currency Overlay Program (Program) benchmark (Program Benchmark) has been changed from 25% of the developed market international equity exposure to 15% of the Total Fund foreign currency exposure.

### Total Fund Foreign Currency Exposure

The Total Fund foreign currency exposure is obtained by adding benchmark foreign currency weights of programs with international benchmarks plus actual foreign currency weights of programs with domestic-only benchmarks. International assets in each category are listed below:

#### Benchmark index currency weights (assets with international benchmarks)

- Public Market Equity
- Fixed Income
- Inflation Linked Bonds included in the Inflation Linked Asset Class
- Real Estate Investment Trusts (REITS) included in the Real Estate Asset Class

#### Actual currency weights (assets with domestic-only benchmarks)

- Private Equity (AIM)
- Private Real Estate
- Infrastructure
- Forestland

For the first four programs listed above, this approach ensures that active currency positions of a program are not reversed.

### Target Currency Hedge

The target currency hedge is the aggregate target value of exposure to each foreign currency that is to be converted to the U.S. dollar. The target currency hedge is obtained by multiplying the Total Fund foreign currency exposure times the policy currency hedge ratio.

As an example, values at the end of 2008 are listed in Table 1 below.

Table 1. Target Hedge Amount, 12/31/2008

Total Fund foreign currency exposure (\$M)	60,573.5
Policy currency hedge ratio	15.0%
Target currency hedge (\$M)	<b>9,086.0</b>

At the end of 2008, aggregate Total Fund exposure to foreign currencies was \$60.6 billion. Multiplying this exposure times the policy currency hedge ratio of

15% gives a target value of \$9.1 billion in foreign currency exposure to be converted to the U.S. dollar.

### **Target Currency Weights**

The aggregate target currency hedge is then allocated across foreign currencies. One challenge is that some Total Fund assets are denominated in foreign currencies that are prohibitively expensive to convert to the U.S. dollar. This challenge is addressed by assigning allocations to the illiquid currencies pro rata to the target currency weights of the “tradeable” currencies, currencies that can be hedged at low cost, as determined in advance by the Currency Portfolio Manager. The basket of tradeable currencies serves as a substitute hedge for the currencies that are illiquid or nonconvertible, so the aggregate target hedge is apportioned only to tradeable currencies.

Presently, target currency weights are obtained from the actual currency exposures of the international equity developed market portfolio. Because of the approved change to apply the hedge to the Total Fund, the new target currency weights incorporate the currency mix of all programs with international assets. The currency mix of each program is weighted according to market value in order to obtain composite weights (middle column of Table 2 below).

Finally, multiplying these currency weights times the aggregate target currency hedge gives the value of the target hedge for each currency (right column in Table 2 below).

Table 2. Target Hedge Percentages and Amounts by Currency, 12/31/2008

<u>Currency</u>	<u>%</u>	<u>\$M</u>
Australian Dollar	5.28%	480.2
Canadian Dollar	7.24%	658.2
Danish Krone	1.01%	91.8
Euro	32.51%	2,953.5
Hong Kong Dollar	4.54%	412.2
Israeli Shekel	0.59%	53.5
Japanese Yen	21.01%	1,909.2
Norwegian Krone	0.70%	63.9
New Zealand Dollar	0.15%	13.3
Singapore Dollar	1.24%	113.0
Swedish Krona	1.84%	166.8
Swiss Franc	6.01%	545.9
U.K. Pound Sterling	17.88%	1,624.7
Total	100.00%	9,086.0

Over time, the target currency hedge percentages and values by currency will evolve with the foreign currency exposures of the Total Fund.

Staff and Wilshire will collaborate on any refinements to the Program methodology by June 2009.

**VI. STRATEGIC PLAN:**

This item is consistent with Strategic Plan Goal VIII, manage the risk and volatility of assets and liabilities to ensure sufficient funds are available, first, to pay benefits, and second, to minimize and stabilize contributions. This item is also consistent with Goal IX; achieve long-term, sustainable, risk-adjusted returns.

**VII. RESULTS/COSTS:**

The cost of implementing this item is not expected to be material.

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